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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,176	02/27/2004	Chan-Tung Chen	3624-0157P	4600
2292	7590	11/16/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			COZART, JERMIE E	
			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/787,176	Applicant(s) CHEN, CHAN-TUNG	
	Examiner Jermie Cozart	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/27/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to a method for manufacturing a golf club head, classified in class 29, subclass 428.
 - II. Claims 11-20, drawn to a friction welding structure, classified in class 473, subclass 342.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be produced another and materially different process such as a process involving adhesive bonding.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Joe Muncy on 11/7/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, either one of the perimeter surface of the body and the incline surface of the striking plate including an annular groove, and the other of the inclined surface of the body and the inclined surface of the striking plate includes an annular flange received in the annular groove providing accurate positioning must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: On page 3, line 2, "20" in its first occurrence is objected to because it incorrectly refers to "body" therefore it is suggested to change "20" to - -10- -; On page 3, line 21, "10" is objected to because it refers to "plate" therefore it is suggested to change "10" to - -20- -; On page 9, line 7, "2" is objected to because it refers to "plate" therefore it is suggested to change "2" to - -20- -. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 5 recites the limitation "the inclined perimeter surface" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 4, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (4,252,262) in view of Oelgoetz et al. (6,138,895).

Igarashi discloses manufacturing a golf club head (1), by providing a body (11) having an opening (8) delimited by an inclined surface comprised of a face (21) and grooves (18, 19, 20), providing a striking plate (12) with an inclined surface, engaging the inclined surface of the striking plate (12) with the inclined surface of the body (11), applying a force to the striking plate to tightly embed the striking plate (12) in the opening of the body (11). The inclined surface of the body (11) has a height greater than a thickness of the striking plate (12). The opening (8) of the body (11) further includes a shoulder formed by the grooves (18, 19, 20). The inclined surface of the body (11) is formed on an inner perimeter surface delimiting the opening (8), and the inclined surface of the striking plate (12) is formed on an inner perimeter surface of the striking plate. *See column 1, lines 35-40; column 2, lines 4-47; and figures 2 and 4 for further clarification.*

Igarashi, however, does not disclose moving a rotating pin along an engaging area between the striking plate and the body to proceed with friction welding, or surface finishing the engaging area between the striking plate and the body.

Oelgoetz discloses a friction welding device comprising a rotating pin (24) which can travel along an engaging area of work-piece (not shown) in order to ensure a thorough welding of workpieces using parameters such as the thickness of the material to be welded. *See column 3, lines 31-42; column 4, lines 42-52; and figures 3-5B for further clarification.*

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to friction weld the striking plate of Igarashi to the

body, in light of the teachings of Oelgoetz, in order to ensure a thorough welding of the workpieces by using such parameters as the thickness of the material to be welded.

12. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi/Oelgoetz as applied to claim 1 above, and further in view of Chen (5,871,408).

Igarashi/Oelgoetz discloses all of the claimed subject matter except for an intermediate layer of nickel formed as a coating between the inclined surface of the body and the inclined surface of the striking plate.

Chen discloses an intermediate layer (30) of nickel formed as a coating between the inclined surface of the body (10) and the inclined surface of the striking plate (20).

See column 2, lines 1-29, and figures 1-2 for further clarification.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention provide the assembly of Igarashi/Oelgoetz with an intermediate layer of nickel formed as a coating between the inclined surface of the body and the inclined surface of the striking plate, in light of the teachings of Chen, in order to effectively fuse the striking plate with the body.

13. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aizawa (5,697,855) in view of Oelgoetz et al. (6,138,895).

Aizawa discloses manufacturing a golf club head (45), by providing a body (47) having an opening (57) delimited by an inclined surface, providing a striking plate (55) with an inclined surface, engaging the inclined surface of the striking plate (55) with the inclined surface of the body (47), applying a force to the striking plate (55) to tightly embed the striking plate in the opening of the body. The inclined surface delimiting the

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opening of the body (47) tapering inward, and wherein the inclined surface of the striking plate tapers rearward. The inclined surface delimiting the opening (57) of the body is one of planar and arcuate, and the inclined surface of the striking plate (55) is one of planar and arcuate. The inclined surface of the body (47) has a height greater than a thickness of the striking plate such that the striking plate is retained within the opening (57) and being flush with the body (47). *See column 5, lines 33-52, and figure 6 for further clarification.*

Igarashi, however, does not disclose moving a rotating pin along an engaging area between the striking plate and the body to proceed with friction welding, or surface finishing the engaging area between the striking plate and the body.

Oelgoetz discloses a friction welding device comprising a rotating pin (24) which can travel along an engaging area of work-piece (not shown) in order to ensure a thorough welding of workpieces using parameters such as the thickness of the material to be welded. *See column 3, lines 31-42; column 4, lines 42-52; and figures 3-5B for further clarification.*

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to friction weld the striking plate of Aizawa to the body, in light of the teachings of Oelgoetz, in order to ensure a thorough welding of workpieces using parameters such as the thickness of the material to be welded.

Conclusion


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the attached PTO-892 are cited to show the welding of golf club heads and their associated striking/face plate.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Jimenez can be reached on 571-272-4530. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jermie Cozart
Examiner
Art Unit 3726